



Tourism & Biodiversity in the Mediterranean: Opportunities and Threats

Advocating for a truly sustainable Green/Blue Economy in the region

Framework Paper

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The Mediterranean Information Office for Environment, Culture and Sustainable Development (MIO-ECSDE) is a non-profit Federation of 126 Mediterranean NGOs for Environment and Development. MIO-ECSDE acts as a technical and political platform for the presentation of views and intervention of NGOs in the Mediterranean scene and plays an active role for the protection of the environment and the promotion of the sustainable development of the Mediterranean region and its countries.

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Introduction

Tourism is one of the most important economic sectors in the Mediterranean, particularly for places with limited industrial or agricultural development options. Traditional development disadvantages, such as small scale economies or lack of complex infrastructures, etc. may be turned into advantages for quality tourism. Many Mediterranean tourist destinations could be considered as typical examples of such cases. However, when tourism in a given area is not well planned or integrated into a wider development policy it becomes unsustainable.

The Mediterranean region is considered to be one of the world's hotspots where exceptional concentrations of biodiversity occur. This crucial natural asset and component of ecosystems has a strong potential to become a motor of sustainable development through sustainable tourism and ecotourism.

Given that EU policies in a number of areas (e.g. EU Integrated Coastal Zone Management, Maritime Spatial Planning, the review of the Common Agricultural Policy, etc.) have a considerable and ever growing impact on tourism and that a number of actions related to tourism development are promoted in the Mediterranean region, there is a need to place emphasis on the opportunities offered but also the threats posed by sustainable tourism development and ecotourism development in the region.

This Framework Paper addresses the key issues and main challenges regarding tourism and biodiversity in the region and presents MIO-ECSDE's collective views and concerns to be taken into account by decision makers, local authorities and communities, when promoting sustainable tourism and ecotourism as vehicles to a sustainable economy in order to position tourism development on a more responsible path.

This paper has been drafted on the occasion of the European Commission's Initiative on Blue Growth, which aims to drive forward the Commission's Integrated Maritime Policy (IMP) and launches a process which will place the blue economy firmly on the agenda of Member States, regions, enterprise and civil society. Coastal and maritime tourism has been identified as one of the five Blue Growth priority areas that could deliver sustainable growth and jobs in the blue economy and contribute to Europe's emergence from the economic crisis. According to the Blue Growth Initiative in order to harvest Europe's full potential for growth and jobs from the tourism sector the challenge of the expansion of the tourism season needs to be tackled. However, this approach raises considerable concerns among the NGO community. These concerns are further exacerbated by the growing number of EU funded programmes (e.g. through Structural Funds, European Neighbourhood and Partnership Instrument, etc.) that promote socio-economic development and enhancement of territories in the Mediterranean region through the uncritically favored adoption of coordinated actions aimed at achieving a better seasonal spread of tourism arrivals in the region. The paper also takes into consideration the Mediterranean Strategy for Sustainable Development (MSSD) and the Ecosystem Approach (ECAP).

1. The Mediterranean: the world's leading tourist destination

Tourism represents one of the driving forces for global economic development. It is directly responsible for 5% of the global Gross Domestic Product (GDP), 30% of the world's services exports and one in every twelve jobs (UNWTO, 2012).

In 2011, Europe, despite the persistent economic uncertainty, exceeded expectations with 6% growth in international tourist arrivals which accounts for over half of all international tourist arrivals worldwide. These results were boosted by the growth of international tourist arrivals recorded in the Mediterranean region, which continued to be one of the world's leading tourist destination areas holding the largest share in Europe (~40%) and the world (~20%).

The robust growth of international tourist arrivals in the Mediterranean was mostly driven by the major destinations: Greece, Turkey, Portugal, Croatia, Spain and Italy. In terms of earnings, Europe holds the largest share of international tourism receipts (45%), reaching about US\$ 460 billion in 2011, while tourists who visited the Mediterranean region the same period spent around US\$ 180 billion. It is noteworthy to mention that tourism in the Middle East suffered a major setback as a result of the social and political developments and changes that took place in the region in 2011 (e.g. Syria, Egypt, Lebanon, Jordan, etc.). Similar results were recorded in Tunisia which was negatively affected by the political developments and suffered a 31% drop in arrivals.

Key tourism trends worldwide

Demand for international tourism maintained momentum in 2011.

- International tourist arrivals grew by 4.6% to reach 983 million worldwide, up from 940 million in 2010.
- Europe, which accounts for over half of all international tourist arrivals worldwide, was the fastest-growing region, both in relative terms (+6% tied with Asia and the Pacific) and absolute terms (29 million more visitors).
- The Middle East (-8%) and North Africa (-9%) were the only (sub)regions to record a decline in arrivals, due to the Arab Spring and political transitions in the region.
- International tourism receipts for 2011 are estimated at US\$ 1.030 billion worldwide, up from US\$ 928 billion in 2010 (+3.9% in real terms), setting new records in most destinations despite economic challenges in many source markets.

Source: World Tourism Organization (UNWTO), Tourism Highlights, 2012.

2. Tourism: a driving force for sustainable development in the region?

Over the past years the recognition of tourism as a vehicle for global growth and development has gained momentum. According to quantitative projections of international tourism demand over a 20-year period, with 2010 as the base year and ending in 2030 (UNWTO Tourism Towards 2030), the number of international tourist arrivals worldwide is expected to increase by an average 3.3% a year. At the projected pace of growth, international tourist arrivals worldwide will exceed 1 billion in 2012 and reach 1.8 billion by the year 2030. In the Mediterranean region the number of visitors is expected to grow from around 200 billion to more than 300 billion visitors by 2030.

It is obvious that tourism is a critical sector for the Mediterranean, offering a promising path for economic growth and job creation. However, this growth can trigger radical changes in the region and lead to a series of undesirable side effects some of which may result in the destruction of the very capital upon which it relies. Mediterranean tourism is based not only on the ample opportunities offered in the region for leisure and entertainment but also on the unique natural and cultural heritage of the region. Mediterranean countries have an international and regional responsibility to ensure that those assets are preserved for future generations to enjoy.

Most countries of the Mediterranean region suffer the impact of unsustainable/inappropriate practices and intensified/large-scale activities in the tourism sector, which are the main forces behind the ecological loss and destruction in the region, particularly in coastal and marine areas that still maintain high natural value and are important to safeguard biodiversity. With the widespread trend toward mass tourism models, the projected growth of tourism development in the region will continue to damage landscapes, put pressure on endangered species, further strain available water resources, increase waste production and industrial emissions and lead to environmental degradation, jeopardizing the sustainability of tourism related activities. In addition, socio-economic changes in the makeup of jobs and the market (tourism monoculture in certain areas) may lead to cultural disruption, out-ruling tangible socioeconomic progress, while making development based exclusively on tourism vulnerable to political uncertainties and conflicts.

3. Biodiversity: a key tourism asset in the Mediterranean

Tourism and biodiversity are intrinsically linked. The diversity of species form a complex mosaic of habitats and landscapes that lie at the heart of many tourist attractions in the Mediterranean, which is considered to be one of the world's hotspots with exceptional concentrations of biodiversity. The diversity of the region's flora is outstanding with 15000 to 25000 species, 60% of which are unique to the region and about one-third of the Mediterranean fauna is endemic (IUCN, 2008).

Biodiversity is vital for tourism in the Mediterranean and plays different roles in different types of tourism. All forms of tourism rely directly on ecosystem services and biodiversity, from mass tourism based on the sea/sun/sand triptych to traditional "holistic" ecotourism (holistic interaction with nature), specialized "fragmented" ecotourism (nature lovers with a specific research/scientific interest), adventure tourism, sport tourism, rural tourism and thermalism, cruise and maritime tourism.

Biodiversity is thus a key tourism asset in the Mediterranean and fundamental to delivering sustainable growth and jobs in the context of Blue and Green Growth. However, utilizing the unique natural capital of the region as a motor of local socio-economic development through sustainable tourism and eco-tourism is a very challenging task that requires coordinated action within the tourism sector and between tourism and other sectors – involving all stakeholders including government officials, local authorities, tourism professionals and NGOs, based on clear frameworks for action, such as sustainable tourism plans and biodiversity strategies at local, national and regional level.

4. Tourism development and biodiversity conservation: where is the balance?

Dealing with the tourism – biodiversity nexus is key to meeting the major challenges facing the tourism sector in the Mediterranean. By directly or indirectly capitalizing on biodiversity assets of the region and promoting a blue/green growth agenda, the full potential for economic growth and jobs creation from the tourism sector could be harvested and tourism could offer a powerful incentive for preserving and enhancing the natural heritage, since the revenue it generates can be channeled back into biodiversity conservation initiatives.

However, when tourism development is unplanned or not properly managed, it can have irreversible effects on ecosystems by placing significant pressure on them through the uncontrolled expansion of infrastructures, polluting activities (transportation, construction, waste generation and wastewater discharges, etc.), high visitor density (trampling of plants, disturbance to animals, etc.), on-site consumption of natural resources (water, etc.) and unsustainable use/removal of wild living resources (hunting, fishing, plant collection/harvesting, etc.). According to the recent Mediterranean Ecological Footprint Trends report (Global Footprint Network, 2012) the region now uses approximately two and a half times more natural resources and ecological services than what its ecosystems can provide. In addition, of particular significance for Mediterranean biodiversity are climate change impacts and the invasion of alien species facilitated by tourism related activities.

Unsustainable tourism development will eventually lead to fragmentation and destruction of natural habitats and to biodiversity loss. In other words, tourism will consume the natural capital on which it is based if not properly designed and operated. This happens whenever tourist activities exceed the carrying capacity of the system¹. To adequately address the sustainability planning of a region where

¹*Carrying capacity* is defined as the maximum number of people that may visit a tourist destination at the same time, without causing destruction of the physical, economic, socio-cultural environment and an unacceptable decrease in the quality of visitors' satisfaction (WTO, 1994).

tourism constitutes a major activity, it is of utmost importance that the carrying capacity is properly assessed. This is definitely a very challenging task that requires ecological, socio-economic and cultural considerations to be taken into account and quantified through a deliberative/participatory process involving all stakeholders.

Tourism induced disturbance to wildlife

The number of people involved in recreational activities focused on viewing wildlife is increasing fast. For a long time it was assumed that such activities are harmless to wildlife and could actually support conservation efforts by generating revenue. However, it has become clear that the level of harassment of 'watchable' wildlife, particularly in natural reserves, where the numbers of visitors are larger, has been underestimated.

Wetlands: The use of water bodies for recreational activities such as walking, biking, angling, bird watching, etc. is widespread. Wetland habitats are important for many waterbirds not only for breeding but for wintering and migrating during winter months. Human disturbance can prevent birds from reaching their breeding sites, accessing food supplies and roosting areas temporarily or for longer periods. These factors affect waterbirds in various ways and may lead to increased nest predation risk, lower density and breeding success, changes in their distribution and habitat use, changes in activity and energy budget.

Beaches: In the Mediterranean a lot of pressure, particularly during the summer, is exerted on coastal areas and beaches. Sand beaches are nesting places for sea turtles, like the Loggerhead *Caretta caretta*, a threatened species in the region. Many of their nesting sites have been destroyed and disturbed by large numbers of tourists on the beaches.

Sea: The growing number of recreational activities at sea e.g. jet skiing, scuba diving, fishing, etc. present a significant threat to many marine habitats in the region. These activities can be the cause of either due to trampling or direct harvesting.

Recreational trampling effects on flora & microfauna

Many ecotourism destinations face high visitation rates and one of the most common impacts of ecotourism activities on natural sites is the effect of trampling by large numbers of visitors on vegetation and even on terrestrial microfauna.

Trampling is particularly problematic in habitats where soil is scarce and fragile, like alpine, coastal dune ridges and relatively thin and fragile horizons are easily disturbed. Apart from the direct damage of trampling on vegetation, other indirect impacts include soil compaction and loss of organic material.

Boardwalks can reduce the impact of trampling. However, even they may not be able to eliminate the problem, since some visitors will still walk on unprotected vegetation. Measures should be taken to reduce off trail activities. Signs that indicate the reasons for the boardwalk and in some cases physical barriers could help a lot. In certain instances it may be necessary to control the numbers of visitors at a site and keep them at a minimum.

5. Addressing seasonality in tourism: should the expansion of the tourism season be uncritically favoured?

Seasonality in tourism has traditionally been regarded as a major drawback which needs to be overcome. Efforts have been made to tackle its effects through pricing strategies, diversification of attractions, market diversification, etc. Nowadays, the expansion of the tourism season on the one hand, and a full blown development of coastal and maritime tourism have been identified as the two main options that could be addressed within the framework of the Blue Growth Initiative in order to harvest Europe's full potential for growth and jobs from the tourism sector. In this context, a growing number of EU funded programmes (e.g. through Structural Funds, European Neighbourhood and Partnership Instrument, etc.) promote socio-economic development and enhancement of territories in the Mediterranean region through the adoption of coordinated actions aimed at achieving a better seasonal spread of tourist arrivals in the region.

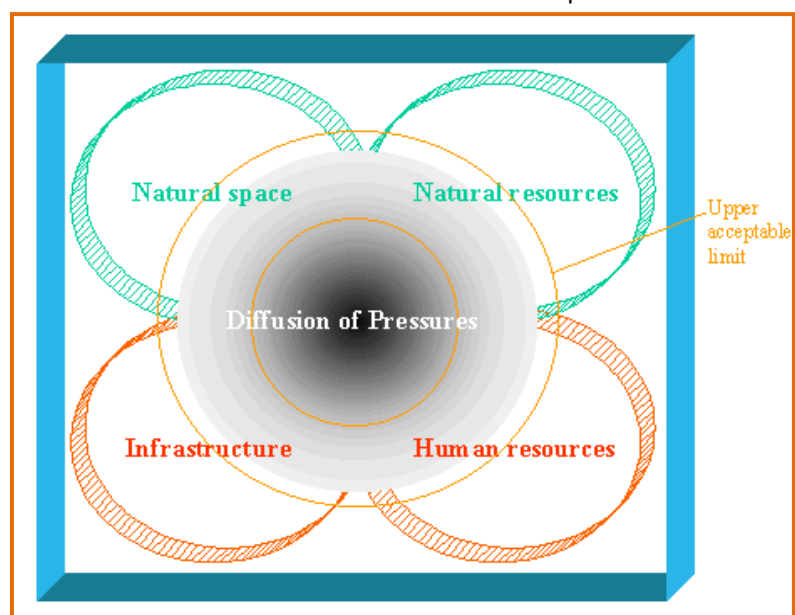
It is obvious that seasonality in tourism is perceived almost exclusively as something negative, as a real threat to the viability of the tourism sector. This perception however overlooks the potential positive impacts of seasonality on environmental, socio-economic and cultural characteristics of tourist destinations. Both sides of this coin should be examined under the prim of the destination's carrying capacity.

The expansion of the high tourist season should not be favored uncritically. The low tourist season is an interval during which both natural and socio-cultural systems and mechanisms recover in a rather smooth, natural way. Local and regional production, administrative and institutional mechanisms are given the opportunity to recharge their batteries and restore, reorganize and renovate.

From an environmental perspective, basic functions of nature need quiet intervals. Mechanisms important for crucial biological processes (including reproduction) are much more vulnerable during periods which now coincide with the low tourism season. An illustrative example based on the findings of a study on flora in archaeological sites in the Mediterranean show that these areas are frequently particularly rich in threatened and rare species. If vegetation is removed only few weeks earlier than usual, in order, for example, to receive early tourists, the plants will not have the time to produce seeds and therefore biodiversity will be seriously threatened.

In this respect, the proposed, expansion of the high season, which is so easily recycled in discussions and recommendations without proper understanding of its full consequences that may cause major environmental, social and economic unbalance, should not be considered as a panacea. The necessary

"regeneration", "restoration" or "renewal" periods of a tourist destination should be taken into account, as well as its carrying capacity when developing sustainable tourism plans and strategies.



Elements affecting the Carrying Capacity

Source: Michael Scoullas, et al. *Planning Sustainable Regional Development. Principles, Tools and Practices. The case study of Rhodes island. MIO-ECSDE – SUDECIR Project, 1999.*

Can an area physically, environmentally, socially, and structurally handle tourists in the off-season?

The case study of Rhodes

In the framework of an EU funded project on Sustainable Development of European Cities and Regions (SUDECIR), MIO-ECSDE carried out a study on a typical Mediterranean coastal region, the island of Rhodes, the development of which is dominated by and dependent on tourism. One of the aims of this activity was to determine the carrying capacity of the region. Some very interesting findings of the study are summarized below:

- Keeping the levels of some pollutants very low for some months of the year was very critical for the survival of certain ecosystems.
- The limiting factor of water resources and its associated pressures such as the salinization of ground water was examined. Analyses confirmed the intrusion of saline water during the summer months. What was an interesting surprise, however, was the reversibility of the phenomenon after the autumn-winter rains. This was possible only because of the "recovery" period.
- Although the expansion of the tourism season would inevitably increase the number of tourists visiting the island, it would not proportionally increase the income, since the needed investment is considerable and the pressure on natural resources would continue or even exceed supply or quality thresholds.
- During the high tourism season it was very difficult for the various elected bodies such as the City Council or the Regional Prefectural Council, etc. to properly function, simply because most people were far too busy to devote time for the efficient management of the commons. Expansion of the tourism season would extend this problem.
- Many of the people employed in the tourism sector during the high season were able, during the low season, to take care of their agricultural land and return to other traditional occupations which also support the local and regional economy. In this way a tourism 'monoculture' is avoided and a less vulnerable economy supported. They also devoted time to their family life, loved ones and their local culture. They were able to speak and hear their own language, which was not the case during the high season, when each inhabitant corresponds to several foreigners.

Source: Michael Scoullas, et al. Planning Sustainable Regional Development. Principles, Tools and Practices. The case study of Rhodes island. MIO-ECSDE – SUDECIR Project, 1999.

6. Advocating for a truly 'sustainable' economic paradigm in the Mediterranean which challenges the current tourism development trends

There is no doubt that tourism and biodiversity are closely interrelated and it is difficult to disconnect the link. These contradictory interactions between tourism and biodiversity, including both potential for economic opportunities and risks of adverse ecological effects, underline the need for sustainable tourism practices, from environmentally friendly infrastructure design to recreational activities that respect nature.

A critical step towards addressing the challenges of tourism development in the Mediterranean is to embed the concept of *carrying capacity* in all sustainable tourism plans and strategies at regional, national and local level so as to safeguard the region's natural (and cultural) heritage while making it accessible for all to enjoy. It is of imperative need to identify and assess the challenges posed by tourism development on biodiversity and take into account the underlying realities and limiting factors when promoting a spread of seasonal and geographical tourist arrivals in the region.

The prerequisites for informed decisions ensuring a sustainable management of seas and coasts (including sustainable use of resources, adaptation to climate change, contingency plans, etc.) should be put in place and one of these is the establishment of genuine participatory approaches in the decision making processes that lead to sustainable tourism plans. Only when the maximum consensus of all involved actors is achieved will implementation of the plans and strategies be successful.

Some other key elements for a truly 'sustainable' economic paradigm in the region that challenges the current tourism development trends and utilizes the region's full potential for growth and jobs from the tourism sector include:

- Promotion of measures and actions that support the development of sustainable tourism, which takes into account and even promotes biodiversity conservation.
- Promotion of eco-sustainable practices, technologies, services and products in the tourism sector related to sustainable management of natural resources (water and energy saving, use of renewable energy sources, water purification, etc.).
- Upgrading eco-label standards for sustainable tourism that takes biodiversity conservation into account.
- Utilization of the multi-functionality of natural and cultural heritage sites, as poles of attraction for eco-tourism, as outdoor 'laboratories' to carry out experiential educational activities, as centers around which income raising activities for the local populations can be developed, while at the same time awareness is raised on the importance of conserving biodiversity.
- Integration of natural & cultural heritage and education for sustainable development (ESD) in the visitor's experience, rather than a simple nature-based experience.



MIO-ECSDE Profile

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ITS MAIN OBJECTIVES ARE ...

To protect the **Natural Environment** (flora and fauna, biotopes, forests, coasts, natural resources, climate) and the **Cultural Heritage** (archaeological monuments traditional settlements, cities, etc.) of the Mediterranean region. The ultimate goal of MIO-ECSDE is to promote **Sustainable Development** in a peaceful Mediterranean.

Major tools and methods used by MIO-ECSDE in order to achieve its objectives are the following:

- Promotion of the understanding and collaboration among the people of the Mediterranean, especially through their NGOs, between NGOs and Governments, Parliaments, Local Authorities, international organisations and socio-economic actors of the Mediterranean region at all levels.
- Assistance for the establishment, strengthening, co-operation and co-ordination of Mediterranean NGOs and facilitation of their efforts by ensuring the flow of appropriate information among relevant bodies.
- Promotion of education, research and study on Mediterranean issues, by stimulating collaboration between NGOs and scientific and/or academic institutions.
- Raising of public awareness on crucial Mediterranean environmental and social issues, through campaigns, publications, exhibitions, presentations, etc.

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